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Iconography and the Breeding of the So-called *Melitaeus catulus* in Ancient Greece and Rome. A Few Comments in Passing

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Summary

Dogs were one of the first domesticated species. The primary source of information on the types of dogs bred by the ancient Greeks and Romans is written records, but iconographic material is equally important. In the Antiquity there were mainly kept hunting, guarding and herding dogs, although iconography, archaeozoological material and written references confirm the presence of small dogs known as *Melitaeus catulus*. Iconography allows us to identify the characteristic features of their appearance and to conclude that this group of animals was dominated by dogs with a dolichocephalic skull.

Keywords: small dogs, pets, companion dogs, *Melitaeus catulus*, antiquity, Rome.

Streszczenie

Ikonografia a hodowla tzw. *Melitaeus catulus* w starożytnej Grecji i Rzymie. Kilka uwag na marginesie

Psy są jednym z pierwszych gatunków udomowionych przez człowieka. Podstawowe źródło informacji na temat rodzajów psów hodowanych przez starożytnych Greków i Rzymian stanowią przekazy pisane, równie ważny jest materiał ikonograficzny. Starożytni przede wszystkim trzymali psy myśliwskie, stróżujące i pasterskie. Ikonografia, materiały archeozoologiczne oraz wzmianki pisane potwierdzają obecność także niewielkich psów określanych nazwą *Melitaeus catulus*. Na podstawie ikonografii jesteśmy w stanie określić charakterystyczne cechy ich wyglądu, a także stwierdzić, że w tej grupie zwierząt dominowały psy o czaszce dolichocefalicznej.

Słowa kluczowe: małe psy, zwierzęta domowe, psy towarzyszące, *Melitaeus catulus*, starożytność, Rzym.

The domestication of animals has had a significant impact on the character and quality of human life[1]. Different species of animals have gradually become a natural part of human life, influencing our diet, clothing, transport and, over time, our leisure activities. Initially, depending on the species, animals were raised primarily for their milk[2], meat[3], skin[4], eggs[5], feathers[6], silk[7], honey[8].

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1 The domestication of animals facilitated human mobility and influenced the changes in clothing, diet, etc. However, the presence of animals also had a negative impact on people. Animals spread a lot of different kinds of diseases, which were dangerous because they could be transmitted to humans – see for example G. Fournié, D.U. Pfeiffer, R. Bendrey, *Early Animal Farming and Zoonotic Disease Dynamics: Modelling Brucellosis Transmission in Neolithic Goat Populations*, "Royal Society Open Science" 2017, vol. 4(2), pp. 1–11; S. Morand, K.M. McIntyre, M. Baylis, *Domesticated Animal and Human Infectious Diseases of Zoonotic Origin: Domestication Time Matters*, "Infections, Genetics and Evolution" 2014, vol. 24, pp. 76–81; G. Marvin, S. McHugh, *In It Together: An Introduction to Human-Animal Studies*, in: *Routledge Handbook of Human-animal Studies*, London 2014, pp. 19–27.

2 Z. Rzeźnicka, M. Kokoszko, *Mleko i produkty mleczne*, in: *Dietetyka i sztuka kulinarna antyku i wczesnego Bizancjum (II–VII c.)*, cz. 3: *Ab ovo ad γάλα. Jajka, mleko i produkty mleczne w medycynie i w sztuce kulinarnej (I–VII c.)*, red. Z. Rzeźnicka, M. Kokoszko, Łódź 2016, pp. 59–170; M. Kokoszko, *Rola nabiału w diecie późnego antyku i wczesnego Bizancjum (IV–VII w.)*, "Zeszyty Wiejskie" 2011, t. 16, pp. 8–28; J.P. Alcock, *Milk and Its Products in Ancient Rome*, in: *Milk. Beyond the Dairy. Proceedings of the Oxford Symposium on Food and Cookery 1999*, ed. H. Walker, Totnes 2000, pp. 31–38.

3 Z. Rzeźnicka, *Rola mięsa w diecie w okresie pomiędzy II a VII w. w świetle źródeł medycznych*, in: *Dietetyka i sztuka kulinarna antyku i wczesnego Bizancjum (II–VII w.)*, cz. 2: *Pokarm dla ciała i ducha*, red. M. Kokoszko, Łódź 2014, pp. 213–244; G. Ekroth, *Meat in Ancient Greece: Sacrificial, Sacred or Secular?*, "Food and History. Revue de l'Institut Européen d'Histoire de l'Alimentation" 2007, vol. 5(1), pp. 249–272; M. Corbier, *The Ambiguous Status of Meat in Ancient Rome*, "Food and Foodways. Explorations in the History and Culture of Human Nourishment" 1989, vol. 3(3), pp. 223–264.

4 K. Grömer, G. Russ-Popa, K. Saliari, *Products of Animal Skin from Antiquity to the Medieval Period*, "Annalen des Naturhistorischen Museums in Wien. Serie A für Mineralogie und Petrographie, Geologie und Paläontologie, Anthropologie und Prähistorie" 2017, vol. 119, pp. 69–93; Ch.L. Heth, *The Skin They Were In: Leather and Tanning and Antiquity*, in: *Chemical Technology in Antiquity*, ed. S.C. Rasmussen, Fargo 2015, pp. 181–196.

5 Z. Rzeźnicka, *Jajka w dietetyce, farmakologii, procedurach terapeutycznych i sztuce kulinarnej*, in: *Dietetyka i sztuka kulinarna*, cz. 3, pp. 9–58.

6 U. Albarella, *Alternate Fortunes? The Role of Domestic Ducks and Geese from Roman to Medieval Times in Britain*, in: *Documenta Archaeobiologiae III. Feathers, Grit and Symbolism*, ed. G. Grupe, J. Peters, London 2005, pp. 249–258.

7 J.-P. Wild, *Some Early Silk Finds in Northwest Europe*, "Textile Museum Journal" 1984, vol. 23, pp. 17–23.

8 A. Bartnik, *O medycznych właściwościach i zastosowaniu miodu w De Medicina Libri VIII Aulusa Korneliusza Celsusa*, "Studia Antiquitatis et Medii Aevi Incohantis" 2020, vol. 5, pp. 88–127; *eadem*, *Zastosowanie miodu w rzymskiej medycynie weterynaryjne*, "Studia

They were also used as draught, pack[9] and saddle[10] animals, as well as guards, hunting companions[11], and sacrificial animals[12]. The co-existence of man and animals has meant that, over time, some species have ceased to be seen as purely utilitarian animals. They have gradually taken on a decorative function[13],

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Antiquitatis et Medii Aevi Incohantis" 2019, vol. 4, pp. 74–106; P. Radošević, *Honey in Roman Culture*, "Bee World" 2010, vol. 87(3), p. 58; M. Zecchi, *On the Offering of Honey in the Graeco-Roman Temples*, "Aegyptus" 1997, vol. 77(1–2), pp. 71–83.

9 J. Sorenson, *Animals as Vehicles of War*, in: *Animals and War. Confronting the Military-animal Industrial Complex*, eds A.J. Nocella, C. Salter, J.K.C. Bentley, Lexington 2014, pp. 19–36; S. Mitchell, *Requisitioned Transport in the Roman Empire: A New Inscription from Pisidia*, "The Journal of Roman Studies" 1976, vol. 66, pp. 106–131.

10 J.M. Kelder, *Horseback Riding and Cavalry in Mycenaean Greece*, "Ancient West & East" 2012, vol. 11, pp. 1–18; D.W. Anthony, D.R. Brown, *The Second Products Revolution, Horse-Riding and Mounted Warfare*, "Journal of World Prehistory" 2011, vol. 24, pp. 131–160; N.A. Bokovenko, *The Origin of Horse Riding and the Development of Ancient Central Asian Nomadic Riding Harnesses*, in: *Kurgans, Ritual Sites and Settlements: Eurasian Bronze and Iron Age*, eds J. Davis-Kimball, E. Murphy, London 2000, pp. 304–310.

11 A.R. Pieri, *Prehistoric Dogs as Hunting Weapons: the Advent of Animal Biotechnology*, in: *Dogs: Archaeology of the Human-Canine Connection Beyond Domestication*, eds B. Bethke, A. Burtt, Gainesville 2020, pp. 7–44; B. Wilkens, *Hunting and Breeding in Ancient Crete*, "British School at Athens Studies" 2003, vol. 9, pp. 85–90; J.M. Barringer, *The Hunt in Ancient Greece*, Baltimore & London 2001.

12 *Animal Sacrifice in the Ancient Greek World*, eds S. Hitch, I. Rutheford, Cambridge 2017; F. McCormick, *Cows, Milk and Religion: The Use of Diary Produce in Early Societes*, "Anthropozoologica" 2012, vol. 47, no. 2, pp. 99–111; G.S. Aldrete, *Hammers, Axes, Bulls and Blood: Some Practical Aspects of Roman Animal Sacrifices*, "The Journal of Roman Animal Sacrifices" 2014, vol. 104, pp. 28–50; *Greek and Roman Animal Sacrifice. Ancient Victims, Modern Observers*, ed. Ch.A. Fraone, F.S. Naiden, Cambridge 2012; J.B. Rives, *The Tehnology of Animal Sacrifice in the Ancient Greek World. Origins and Development*, in: *Ancient Mediterranean Sacrifice*, eds J. Wright Kunst, Z. Varhelyi, Oxford 2011, pp. 187–232.

13 As decorative animals, kept for pleasure, the ancient Romans mentioned, among others, peacocks and birds that could be taught to imitate the human voice such as ravens, magpies, parrots, etc. see P. Matusiak, *Pica salutatrix, corvum salutator O witających ptakach w literaturze antycznej*, in: *Rozważania o naturze*, red. E.M. Gryksa, Tarnów 2021, pp. 55–65. Interesting depictions of these birds can be observed in Hellenistic and Roman mosaics, for example a floor mosaic from Pergamon dated to the 2nd century BC or a mosaic that shows parrots drinking from a fountain from Capua Vetere. Parrots were also described by Catullus and Ovid see F.D. Lazenby, *Greek and Roman Household Pets*, "The Classical Journal" 1949, vol. 44(5), pp. 299–307; L. Kronenberg, *Aemilius Macer as Corinna's Parrot in Ovid Amores 2.6*, "Classical Philology" 2016, vol. 111(3), pp. 264–275; B. Weiden Boyd, *The Death of Corinna's Parrot Reconsidered: Portey and Ovid's Amores*, "The Classical Journal" 1987, vol. 82(3), pp. 199–207; L. Cahoon, *The Parrot and the Poet: The Function of Ovid's Funeral Elegies*, "The Classical Journal" 1984, vol. 80(1), pp. 27–35. On the animals kept in houses by the ancient Romans, see F.D. Lazenby, *Greek and Roman Household Pets*, pp. 299–307.

have became a source of entertainment during games or races[14], and companionship humans[15].

The history of animal domestication is relatively long. The process took place in several stages in many parts of the world and involved species found in the particular areas[16]. Modern research indicates that the first animal in the human environment that we can consider domesticated was the dog. It is generally accepted that it was present in the human environment some 15,000 years ago; however, more recent evidence suggests that this time frame may be extended even further, possibly to over 20,000 years ago[17].

On the basis of morphological studies and mitochondrial DNA research, it has been confirmed that the ancestor of the dog is the wolf (*Canis lupus*), a predatory

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[14] In the ancient world, races and games with animals were popular, see: D.G. Kyle, *Animal Spectacles in Ancient Rome: Meat and Meaning Addendum*, in: *Sport in the Greek and Roman World. Vol. 2. Greek Athletic Identities and Roman Sports Spectacle*, ed. T.F. Scanlon, Oxford 2014, pp. 269–295; M. Mackinnon, *Supplying Exotic Animals for the Roman Amphitheatre Games: New Reconstructions Combining Archaeological, Ancient Textual, Historical and Ethnographic Data*, "Mouseion: Journal of the Classical Association of Canada" 2006, vol. 6(2), pp. 137–161.

[15] P. Matusiak, *Pica salutatrix, corvum salutator. O witających ptakach*, pp. 55–65; J. Wiewiorowski, *"Do serca przytul…" – czyli dlaczego warto było mieć psa z perspektywy Rzymian (i nie tylko)*, "Studia i Materiały Ośrodka Kultury Leśnej" 2017, vol. 16, pp. 255–279; L. Bodson, *Motivations for Pet-keeping in Ancient Greece and Rome: A Preliminary Survey*, in: *Companion Animals & Us. Exploring the Relationships Between People & Pets*, eds A.L. Podberscek, E.S. Paul, J.A. Serpell, Cambridge 2000, pp. 27–41.

[16] M.R. Sánchez-Villagra, *The Process of Animal Domestication*, Princeton 2021; L.A.F. Frantz, D.G. Bradley, G. Larson, L. Orlando, *Animal Domestication in the Era of Ancient Genomics*, "Nature Reviews Genetics" 2020, vol. 21, pp. 449–460; A. Scheu, *Neolithic Animal Domestication as Seen from Ancient DNA*, "Quaternary International" 2018, vol. 496, pp. 102–107; K. Anderson, *A Walk on the Wild Side: a Critical Geography of Domestication*, "Progress in Human Geography" 1997, vol. 21(4), pp. 463–485.

[17] The chronology of dog domestication is still unclear, and new findings have been changing it. According to geneticists, domestication occurred around 25,000 years ago in areas of eastern Asia. Early domesticated dogs spread to other areas with human groups. Morphologists suggest that domestication occurred around 12,000 BC, based on the Bonn-Oberkassel discovery, see: M.-P. Horard-Herbin, A. Tresset, J.-D. Vigne, *Domestication and Uses of the Dog in Western Europe from the Paleolothic to the Iron Age*, "Animal Frontiers" 2014, vol. 4(3), pp. 23–31; G. Larson, E.K. Karlsson, A. Pierri, M.T. Webster, S.Y.W. Ho et al., *Rethinking Dog Domestication by Integrating Genetics, Archaeology and Biogeography*, "Proceedings of the National Academy of Sciences of the United States of America" 2012, vol. 109(23), pp. 8878–8883; F. Galibert, P. Quignon, Ch. Hitte, C. André, *Toward Understanding Dog Evolutionary and Domestication History*, "Comptes Rendus Biologies" 2011, vol. 334(3), pp. 190–196; cf. J. Wojtaś, M. Karpiński, K. Tajchman et al., *Canis lupus familiaris – Domestication*, "Folia Pomerenae Universitatis Technologiae Stetinensis. Agricultura. Alimentaria. Piscaria et Zootechnica" 2018, vol. 345(48), pp. 129–135.

mammal of the canine family. As a result of the domestication process, the dog has acquired many new characteristics, which have gradually evolved as follows[18]: there was a change in the size, and compression of the teeth, reduction in the size and shape of the eardrum, the shape of the zygomatic process of the jaw, etc. In successive stages, the selection has produced more than 400 breeds and varieties with a more or less fixed morphotype. They can all be divided into several major types, some of which have been around since ancient times[19]. On the basis of archaeozoological material dating back to around 4500 B.C., researchers have distinguished five main types of dog: 1) mastiffs; 2) wolfhounds; 3) greyhounds; 4) pointers and 5) herding dogs[20]. These dogs performed a wide range of useful functions in the human environment; they served to guard homes[21] and livestock[22], they were used for hunting[23], and as fighting[24] or sacrifice animals[25].

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18 E. Axelsson, A. Ratnakumar, M.-L. Arendt et al., *The Genomic Signture of Dog Domestication Reveals Adaptation to a Starch-rich Diet*, "Nature" 2013, vol. 495, pp. 360–364; M.A.R. Udell, N.R. Dorey, C.D.L. Wynne, *What Did Domestication Do to Dogs? A New Account of Dogs' Sensitivity to Human Actions*, "Biological Reviews" 2010, vol. 85(2), pp. 327–345; V. Ruusila, M. Pesonen, *Interspecific Cooperation in Human (Homo Sapiens) Hunting: The Benefits of a Barking Dog (Canis familiaris)*, "Annales Zoologici" 2004, vol. 41(4), pp. 545–549.

19 Several basic types were distinguished in the antiquity. The so-called *scenthounds* were already known in ancient Egypt where they were probably bred, then became common in ancient Greece and Rome see S. Filipek, *Canis lupus fmiliaris. Symbolika psa w historii, sztuce i literaturze – zarys problematyki*, "Roczniki Humanistyczne" 2021, t. 69(4), pp. 447–470. The *sighthounds* include breeds adapted to fast running, already known in ancient Egypt, Greece and Rome see B. Fogle, *Psy: wielka encyklopedia*, Warszawa 1996, pp. 84–85 cf. D. Bennett, R.M. Timm, *The Dogs of Roman Vindolanda. Part IV. Large Sighthounds and Guard and Utility Dogs*, "Archaeofauna" 2021, vol. 30, pp. 185–216. The *mastiff-like* are the largest and strongest of the dogs, they were used to protect homes and livestock in ancient Greece and Rome, while the *spitz-like* was a group of small dogs with fox-like muzzles, small pointed ears and curly tails.

20 D. Taylor, *Księga psów*, Warszawa 1995, pp. 8–9.

21 Ch. Jung, D. Pörtl, *How Old Are (Pet) Dog Breeds?*, "Pet Behaviour Science" 2019, vol. 7, p. 30.

22 L. Coppinger, R. Coppinger, *Dogs for Herding and Guarding Livestock*, in: *Livestock Handling and Transport*, ed. T. Grandin, New York 2000, pp. 237–254.

23 Guard dogs and hunting dogs were extensively discussed by Xenophon in his work Cynegetica (Xenophon, *Cynegetica*, 7) and by Arrian (Arrian, *Cynegetica*, 18.1–5) cf. B. Wilkens, *Hunting and Breeding*, pp. 85–90; J.M. Barringer, *The Hunt in Ancient Greece*; R.L. Fox, *Ancient Hunting: From Homer to Polybios*, in: *Human Landscapes in Classical Antiquity*, eds J. Salmon, G. Shipley, London 1996, pp. 119–153.

24 O. Rees, *Dogs of War, or Dogs in War? The Use of Dogs in Classical Greek Warfare*, "Greece & Rome" 2020, vol. 67(2), pp. 230–246; M.N. Faszcza, *Psy bojowe w społeczeństwach zachodniolatyńskich?*, in: *Animus Belli 2017 Duch Wojny*, t. 2: *Historia sztuki wojennej. Zwierzęta na polu walki*, ed. J. Lasota, M. Palczewska, Warszawa 2017, pp. 145–168.

25 A.W. Irvin, J. Lundock, *Purification through Puppies. Dog Symbolism and Sacrifice in the Mediterranean World*, in: *Community and Identity at the Edges of the Classical World*, ed.

The history of canine domestication can be reconstructed from a variety of sources, including archeozoological material, written records and iconography. Iconographic material is often underestimated by many researchers, but it can be crucial in the case of domestication, especially with regard to the development of breeds with specific characteristics within an already domesticated species such as the dog. Ancient sources clearly indicate that dogs were used as guarding, hunting or herding animals, while few authors mention other functions they performed. There is no doubt that dogs of small size, kept directly at home as "companions", had other functions than those mentioned above[26].

The purpose of this article is to discuss the question of the breeding of small dogs referred to in ancient literature, by the Greek name *Μελιταῖον κυνίδιον* or the Latin *Melitaeus catulus*, and to indicate the beginnings of the formation of their distinct morphology and to determine whether a separate 'breed' can be said to have developed. The analysis will be carried out on the basis of iconographic material. The narrative sources in which small domestic dogs are mentioned mostly do not allow for a clear reconstruction of their appearance, let alone tracing the heredity of specific features. On the basis of the iconography, it is possible to pick up the characteristics of the "breed" and their repetition, which may indicate their heredity.

On the basis of the available written records, it is difficult to determine when and under what circumstances small dogs began to be used purely as companions, and whether this was related to human efforts to preserve their small size and

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A.W. Irvin, Weinheim 2020, pp. 189–207; R.M. Martínez Sánchez, M. Rubio Valverde, M. Moreno-Garcia, A. Maldonado Ruiz, A. Granados Torres, A. Delgado Huertas, *Who Let the Dogs in? Lap Dogs, Canid Sacrifices and Funerary Practices in the Roman Cemetery of Llanos del Pretorio (Cordoba, Spain)*, "Archaeological and Anthropological Sciences" 2020, vol. 12, pp. 1–17; M.G. Sergis, *Dog Sacrifice in Ancient and Modern Greece: From the Sacrifice Ritual to Dog Torture (Kynomartyrion)*, "Folklore: Electronic Journal of Folklore" 2010, vol. 45, pp. 6–88; J. De Grossi Mazzorin, C. Minniti, *Dog Sacrifice in the Ancient World: A Ritual Passage?*, in: *Dogs and People in Social, Working, Economic or Symbolic Interaction. Proceedings of the 9th Conference of the Internationl Council of Archaeozoology, Durham, August 2002*, eds L.M. Snyder, E.A. Moore, Oxford 2006, pp. 62–66; B. Wilkens, *The Sacrifice of Dogs in Ancient Italy*, in: *Dogs and People*, pp. 131–136.

[26] In the Mediterranean cultural circle, not only small dogs were kept in homes as companion animals or for their decorative value, but also birds such as: parrots, blackbirds, magpies, ravens or peacocks and even fish of various species see Plinius, *Historia Naturalis*. 10.118; 10.124; Macrobius, *Saturnalia*. 2.4.29 cf. K. Kleczkowska, *Zwierzęta domowe w starożytnej Grecji i Rzymie*, in: *Kulturowe wizerunki przestrzeni domowych*, red. K. Kleczkowska, K. Kuchowicz, A. Kuchta, M. Nawrocki, Kraków 2017, pp. 103–116.

other distinctive morphological characteristics. At present, small breeds include dogs whose body weight does not exceed 10 kg, in addition to characteristics that distinguish them metabolically, physiologically and anatomically from animals classified as medium or large breeds. Because of the importance of the physiological characteristics in the formation of the "breed", the iconographic and archeozoological material preserved to date must be used to determine the approximate time of their origin.

In antiquity, dog breeding was popular in ancient Egypt[27] as well as Greece[28] and Rome[29]. In ancient Egypt in the Predynastic period there were Molossian dogs, while on the basis of iconographic representations dating back to the Old Kingdom period it is possible to distinguish greyhounds, scenthounds and spitz dogs[30]. An analysis of Egyptian paintings from different periods allows to distinguish 12–13 breeds[31]. Slightly fewer breeds were known in ancient Greece. In the *Historia Animalium*, Aristotle mentions large herding dogs from Epirus, smaller Molossians from Molossia – considered to be hunting dogs, Laconians

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27 M. Hartley, *The Significance of Predynastic Canid Burials in Ancient Egypt*, "Archéo--Nil" 2015, vol. 25, pp. 57–74; S. Ikram, *Man's Best Friend for Eternity: Dog and Human Burials in Ancient Egypt*, "Anthropozoologica" 2013, vol. 48(2), pp. 299–307; E. Zardnik, *Der Hund als geliebtes Haustier im Alten Ägypten, anhand von bildlichen, schriften und archäologischen Quelen: Altes und Mittleres Reich*, Berlin 2009; K. Lisremann, *Kulturgeschichtliche Bedeutung des Hundes in Alten Ägypten*, Münich 2010; A. Basson, *Dog Imaginary in Ancient Israel and the Ancient Near East*, "Journal for Semitics" 2006, vol. 15(1), s. 92–106.

28 Dogs were already mentioned in Homer*'s Iliad* (Homer, *Il.* 23.198–199) and the *Odyssey* (Homer, *Od.* 17.290–327), and Plato wrote about them (Plato, *Rep.* 2.376b). They were also present in Greek mythology, e.g. Cerberus, the guardian of Hades; the seven dogs accompanying the goddess of hunting Artemis or the dog associated with the goddess Hekate. See: C. Franco, *Shameless. The Canine and the Feminine in Ancient Greece*, Oakland 2014; K. Trantalidou, *Companions from the Oldest Times: Dogs in Ancient Greek Literature, Iconography and Osteological Testimony*, in: *Dogs and People*, pp. 96–119.

29 Ch. Jung, D. Pörtl, *How Old Are (Pet) Dog Breeds?*, pp. 29–37; M. Zedda, P. Manca, V. Chisu et al., *Ancient Pompeian Dogs – Morphological and Morphometric Evidence for Different Canine Population*, "Anatomy, Histology, Embryology" 2006, vol. 35(5), pp. 319–324; J. De Grossi Mazzorin, A. Tagliacozzo, *Morphological and Osteological Changes in the Dog from the Neolithic to the Roman Period in Italy*, in: *Dogs Through Time: An Archaeological Perspective. Proceedings of the 1st ICAZ Symposium of the History of the Domestic Dog. Eight Congress of the International Council for Archaeozoology (ICAZ98) August 23–29, 1998 Victoria, B.C., Canada*, ed. S.J. Crockford, Victoria 2000, pp. 141–161.

30 S. Mosleh, *A Study on the Portrayal of Hunting Dogs in the Old Kingdom*, "Journal of Association of Arab Universities for Tourism and Hospitality" 2019, vol. 16(1), pp. 90–99.

31 Some researchers mention about 10 breeds, see: Ch. Jung, D. Pörtl, *How Old Are (Pet) Dog Breeds?*, p. 31.

from Sparta[32], Cyranians, Egyptians, Indians and Maltese[33]. Hunting dogs were extensively discussed by Xenophont[34], Flavius Arrian[35], Nemesian[36] or Oppian[37] – all three authors entitled their works *Cynegetica*. In ancient Rome, Laconian dogs and Molossians were mentioned by Virgil[38] and Horace[39] while Roman agronomists, Terentius Varron and Columella, spoke more extensively about breeding and dog breeds. Terentius Varron mentioned shepherd dogs kept for the protection of sheep and also hunting dogs[40], while the latter author made a distinction between guard dogs, shepherd dogs and hunting dogs. Neither agronomic studies nor those devoted to the art of hunting mention small dogs, whose main function was to keep their owner company. There are several reasons for this lack of information. Animals of this type did not play a role on farms, so they were of no interest to either the authors or the readers of such texts. The situation is similar in the case of treatises on hunting. Their authors mentioned animals whose qualities could be used for hunting, without being interested in dogs with other traits.

The question of information on small dogs is slightly different in the case of encyclopaedic texts, geographical texts and poems. In the case of the first two categories of works, i.e. encyclopaedias and geographical texts, the authors, when describing the fauna found in certain areas, mentioned small dogs if they were found in the places they described[41]. Poems provide more detailed information about small dogs. They are mentioned by Artemidor Daldianus in the *Onirocriticon*[42] and Martialis[43]. The Roman poet in one epigram mentioned "miniature Gallic dogs"[44], while in another he described the behaviour and character of a small

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32 The so-called Laconian dogs were also depicted in iconography. The head of a Laconian dog crowns, e.g., a rython dated to the 4th century BC, found in the collection of Poldi Pezzoli; the animal's figure is depicted on a 4th century BC kylix from Apulia.

33 Aristotle, *Historia Animalium*, 6.20.

34 Xenophon, *Cynegetica*, 3.1–4.10.

35 Arrian, *Cynegetica*, 3.1–7; 4.1–5; 7.1–7.

36 Nemesian, *Cynegetica*, 103–236.

37 Oppian, *Cynegetica*, 1.368–538.

38 Vergilius, *Georgicae*, 3.404.

39 Horatius, *Epodes*, 6.

40 Varro, *Rerum rusticarum*, 2.9.1–2.

41 Athenaeus mentions Maltese dogs when describing the customs of the Sybarites (Athenaeus, *Dipnosophistarum*, 12.518).

42 Artemidor Daldianus, *Onirocritcon*, 5.41.

43 Martialis, *Epigramata*, 1.109; 14.198.

44 *Ibidem*, 14.198.

domestic dog belonging to a friend[45]. Martialis portrayed the small animal as pampered and in need of constant care. There is no doubt that the work should be seen as a satire, but the studies of dog bones from the Mediterranean confirm that small dogs received much more care than large dogs. Among other things, they were kept in houses in the immediate vicinity of humans, and close attention was paid to their diet[46]. Plutarch and Alkiphron also wrote this type of dogs. Plutarch portrayed them as defenceless and skittish[47], while the other author emphasised that they were spoilt and voracious[48]. Literary texts mainly mention the small size of these animals or discuss their character and their relationship with their keeper, which provided excellent satirical material. If we want to talk about the morphology and the formation of the distinctive features of the appearance of these animals, it is undoubtedly necessary to analyse the iconographic material. The small size indicated in the texts is not the only feature of these dogs. Moreover, the term "small size" is fairly relative and ambiguous. The iconography makes it possible to identify a number of other characteristics, in addition to size, which distinguish small dogs from other "breeds" known in antiquity.

The earliest iconographic representations of dogs, whose morphological characteristics differ from those of hunting and herding dogs, come from ancient Greece. Greek pottery depicts small dogs with fluffy tails, light-coloured, often white coats and fox-like muzzles. In addition to the aforementioned iconographic representations preserved on ceramic objects, archaeological discoveries from Ancient Greece and Rome include characteristic bas-reliefs and terracotta figurines of small dogs. As in the ceramic representations, these dogs are characterised by their dense coat, fox-like pointed muzzle and small triangular ears. The distinctive features of these animals, visible in iconographic representations, suggest that they may have belonged to a group of spitz dogs with a dolichocephalic skull structure, already known in ancient Egypt.

In the case of the surviving pottery, we can distinguish two types of representation. The first includes scenes of small dogs in the company of children or youths – very often they were shown playing. The other are representations of the animals themselves. The oldest image, a painting of a small dog accompanied

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45 *Ibidem*, 1.109.

46 A number of discoveries from Carthage, including the remains of a small dog, show that these animals continued to be cared for by humans despite health problems and old age; see: M. Mackinnon, *Sick as a Dog: Zooarchaeological Evidence for Pet Dog Health and Welfare in the Roman World*, "World Archaeology" 2010, vol. 42(2), pp. 290–309.

47 Plutarchus, *De tranquillitate animi*, 472c–d.

48 Alciphron, 3.22.

by a young person, comes from an amphora from Vulci dated to 500 BC[49]. Unfortunately, we do not currently have the original vase. There are only sketches available from the early 20th century, which do not show the animal's colours, among other things. The dog portrayed in the sketch is small, fluffy and resembles a spitz with a characteristic triangular muzzle. The animal is shown in the company of a young man walking it on a leash, with the following inscription *Μελιταῖε* below the animal. We can see a similar scene on an ostracon from Egypt in the Roman period. Below the image of a dog there is an inscription "*wa mlitin*"[50]. A spitz-like muzzle also characterises a fluffy dog, depicted on an Attic black-figure vase dated to 450–400 BC[51]. The animal has a fluffy curled tail and a white colour. The vase depicts a scene of a dog playing with a boy. The child is shown on all fours in front of a small dog. A dog of similar appearance, i.e. small in size, with short hair, pointed muzzle and ears, can also be seen on a red-figure vase dated 420–400 BC. The animal is accompanied by a boy playing an instrument[52]. A child, in this case a girl in a chiton playing with a tortoise, and a dog, reminiscent of a spitz, can also be seen on a red-figure vase from Puglia, Italy, dated to 360–350 BC[53].

A dog very similar to the one on the lost Vulci vessel was represented on an Attic red-figure vase dated to 450–435 BC. The animal on the vase is also small, with a curled tail, relatively short nose, coat and triangular ears, although the coat appears shorter than in the previous depictions. Beside the animal, we can see a bunch of grapes on the vase. A small animal with a fluffy tail also decorates a black Attic pottery lekythos, dated to the 5th century BC[54].

The muzzle of a dog resembling a spitz crowns a ceramic rhyton from Apulia dating to the 4th/3rd century BC[55]. Remaining pigment suggests that it was originally painted white. Another interesting image of a dog can also be found on an Apulian red-figure rhyton dated to 350–300 BC. In both cases, the head of the animal shows a resemblance to a spitz. The muzzle is elongated like that of a fox, the ears small and pointed. The dog's head crowning the 4th century BC rhyton

49 J. Busuttil, *The Maltese Dog*, "Greece & Rome" 1969, vol. 16(2), p. 206.

50 *Ibidem*.

51 "A boy and a dog". 450–400 B.C., University Museums, University of Mississippi, no. 13435.

52 Red figured chous, The British Museum No. 1864,1007.231 See H.B. Walters, E.J. Walters, E.J. Forsdyke, C.H. Smith, *Catalogue of Vases in the British Museum*, London 1893–1925.

53 Red figured chous, The British Museum no. 1856,0512.12

54 The vessel comes from the private collection of H.S. Vienna.

55 Ceramic rhyton, 4th–3rd century BC, Metropolitan Museum see H. Hoffmann, *Tarentina Rhyta*, Mainz 1966, p. 44, no. 251.

from Apulia[56] looks similar. The dog has a slightly pointed muzzle and short ears emerging from a wavy coat.

Dogs similar to those depicted on the pots and vases mentioned above have also been found on funeral reliefs. A particularly interesting depiction of a dog leaning with its front paws on a girl in a chiton can be found on an Attic grave stele dated to 430 BC[57]. The animal featured on the stele is resembles a spitz. The relief shows a fox-like muzzle, a fluffy tail and curly hair on the sides. A small dog and its owner are also depicted on a so-called Moschion tomb stele dated to the 4th century BC[58]. The relief shows a boy with one hand on the head of an animal and the other holding a bird. A scene of a boy playing a ball with a small dog was placed on a marble stele dated to 200–50 BC[59]. The animal depicted in the relief does not differ in appearance from the dogs described earlier.

A dog on its own, unaccompanied by a human being, is depicted on a Roman marble tomb stele dated between 150 and 200 AD[60]. Interestingly, there is a following inscription: "HELENAE ALUMNAE / ANIMAE / INCOMPARABLI ET / BENE MERENTI[61]". The only image on the gravestone is that of a dog, so it leaves some doubt as to whether the inscription refers to the animal depicted or to a girl named Helena. Nevertheless, the animal is characterised by its small size, fox-like muzzle and small triangular ears.

A number of ceramic figurines representing small spitz-like dogs have also been found in the archaeological sites of ancient Greece and Rome. The figurine found at Ruvo, measuring 8.89 × 10.16 centimetres, depicts a small, smooth-coated dog with triangular ears and a fox-like muzzle[62]. A similar-looking animal

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56 C. de Micheli, *Rhyta tarantini in una collezione privata del Canton Ticino*, "Quaderni Ticenesi di Numismatica Antichita Classiche" 1994, vol. 23, pp. 133–152.

57 K. Margariti, *The Sombre Smile of Melisto*, "Mediterranean Archaeology" 2018, vol. 31, pp. 27–45.

58 *Greek Funerary Sculpture. Catalogue of the Collections at the Getty Villa*, ed. J.B. Grossman, Los Angeles 2001, pp. 18–20; D. Woysch-Méautis, *La representation des animaux et des êtres fabuleux sur les monuments funéraires grecs de l'époque archaïque à la fin du lve siècle av. J.C.*, Lausanne 1982, no. 201a, pl. 29; A.N. Oikonomides, *Two Attic Grave Stelai in the J. Paul Getty* Museum, "The J. Paul Getty Museum Journal" 1975, vol. 2, pp. 53–56.

59 The British Museum no. 1864.0220.10.

60 N.W. Slater, *Mourning Helena: Emotion and Identification in a Roman Grave Stela (71. AA.271)*, "Getty Research Journal" 2010, vol. 2, pp. 139–146; C. Vermeule, N. Neuerberg, G. Wilson, *Guidebook: The J. Paul Getty Museum*, Malibu 1978, p. 60.

61 Getty Museum Collection, object number 71.AA.271 (To Helen, a foster child, with a soul beyond comparison and deserving a praise).

62 The British Museum, No. 1856.1226.380

is immortalised in the form of *an askos*, a small ceramic bottle used for storing lamp oil. The bottle, dating to the 1st/2nd century, was made at Knidos. The dog is presented in a sitting position, with small triangular ears and a slightly pointed fox-like muzzle. There is no doubt that the animal was originally white in colour, as it can be determined from the remains of pigment[63]. A 1st century figurine of a dog with a fluffy tail found in Smyrna was also made in a similar style[64].

In the case of small dogs, the white colour seems to have been characteristic of representations on ceramics as well as on reliefs or figurines. Its repetition suggests that this colour was quite common for the small dogs popular in antiquity, known as Meliteus catulus, so it may have been the result of selection and initial breeding efforts. The dog representations discussed above include other recurring elements such as a foxy muzzle, small ears or a fluffy curled tail.

From the iconographic material that has remained, it is clear that in Ancient Greece and Rome, in addition to working dogs used for hunting or herding, there were other dogs that had a purely companionable function. The visual sources allow us to establish their appearance and build, but it is difficult not only to determine where they came from, but also to state unequivocally that their breeding and efforts to consolidate certain morphological characteristics were intentional. Nor can we know what they were called in the past. Some clues, apart from the brief inscriptions on the vases, may be provided by inscriptions on grave stelae[65] and references in texts by ancient authors.

There are references to dogs of small size in the accounts of ancient authors. The Greek authors referred to them by the name *Μελιταῖον κυνίδιον*, while the Latin authors wrote of *Melitaeus catulus*, the same name was written on pottery. The first part of the name in both Greek and Latin referred to the place of origin, while the other part referred to the size of the animal[66]. The famous Greek geographer Strabon, mentioned small dogs coming from Melitē near Pacynchus[67], i.e. modern Malta, while Pliny the Elder wrote that the dogs, came from Melitē, an island in the Adriatic[68] identified with Mljet in Croatia. A few centuries later, the scholiast Clement of Alexandria mentioned that the dogs were called Maltese because they came from an island in the Tyrrhenian Sea, while Stephanus of

63 The British Museum, no. 1907-0520-69.

64 The British Museum, no. 1914-0516-4.

65 J. Méndez Dosuna, *Whats in a Name: An Epitaph for a Maltese Dog in the Greek Anthology (A.P. 7.211)*, "Seminari Romani di Cultura Greca" 2007, vol. 10(2), pp. 267–275.

66 The Greek word *κυνίδιον* means 'little dog' and the Latin *catulus* means 'puppy'.

67 Strabo, *Geographica*, 6.2.11.

68 Plinius, *Historia Naturalis*, 3.152.

Byzantium noted that the island lay between Greece and Italy[69]. It is difficult to indicate clearly which author correctly identified the place of origin of these small animals[70], nevertheless the name they used became relatively popular in antiquity as a term for small white-coated dogs. The animals referred to in antiquity as *Melitaeus catulus* were characterised by specific morphological features such as their white colour, a curled tail, small triangular ears or a pointed muzzle. They were undoubtedly popular animals kept in wealthy households. Based on the substantial number of iconographic representations and archaeozoological findings, the beginnings of breeding and the emergence of Melitaeus catulus as a separate breed cannot be dismissed. It is now widely believed that the ancient dogs should be identified with the modern breed known as the Maltese, but this theory is not supported by the source material. Dogs resembling those depicted in Greek and Roman iconography belong to the spitz group, which includes many breeds from northern, eastern and central Eurasia, the polar regions of the Americas, and Greenland and Iceland. These animals have a fairly uniform appearance, with a sharp, wedge-shaped head, a strong, muscular back, an upturned tail curled over the rump, and triangular upright ears. Most are medium-sized dogs, but there are also miniature breeds. Their different types have been formed by migration and evolutionary adaptation to local climatic conditions.

The appearance of companion dogs known from iconographic representations is confirmed by archaeozoological material. Bones of small companion dogs from Roman times have been discovered, among others in Pompeii[71], in Cordoba[72] and many sites in Italy[73], the province of Mesa[74] etc. Therefore, it can be concluded that small dogs with both a dolichocephalic and a brachycephalic skull structure were domesticated in ancient times. From the iconographic and archaeozoological material it is undoubtedly clear that microdogs with

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69 Stephanus, *Ethnika*, 443.6.

70 The question concerning the origin of the small dogs known from iconography and the accounts of ancient authors as '*Maltese*' has not been resolved to this day see J. Busuttil, *The Maltese Dog*, pp. 207–208.

71 M. Zedda, P. Manca, V. Chisu et al., *Ancient Pompeian Dogs*, p. 319.

72 R.M. Martinez Sánchez, M. Rubio Valverde, M. Moreno-Garcia, A. Maldonado Ruiz, *Who Let the Dogs in?*, pp. 1–17.

73 J. de Grossi Mazzorin, A. Tagliacozzo, *Dog Remains in Italy from the Neolithic to the Roman Period*, "Anthropozoologica" 1997, vol. 25, pp. 429–440.

74 S. Vuković-Bogdanović, M. Jovičić, *Dog Burials from the Cemeteries of the Roman City of Viminacium (Moesia Superior, Kostolac, Serbia)*, in: *Proceedings of the 2nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012*, ed. L.F. Vagalinski, Sofia 2015, pp. 687–702.

a dolichocephalic skull structure, reminiscent of a spitz, were much more common in the Mediterranean cultural area. It should also be remembered that animals with both dolichocephalic and brachycephalic skull structures were a small group compared to the very popular and commonly kept herding, guarding and hunting dogs of the Mediterranean. The emergence of a group of animals with non-utilitarian characteristics, their presence in human life and the care shown to them by their owners suggest that they fulfilled a different type of need from other breeds. In the centuries that followed, the interest in the so-called micro-pigs did not diminish, leading to further breeding work and the creation of new, distinct breeds.

Iconographic sources show that the largest group of small domestic dogs in the Mediterranean cultural area were those with a dolichocephalic skull, small ears, long or short coat, curled tail and white coat, belonging to the spitz group. They were commonly called Maltese dogs, but did not resemble the modern Maltese. A smaller and probably less popular group were dogs with brachycephalic skulls. The lesser popularity of these animals may be evidenced by the lack of iconographic representations. Their presence in the human environment is mainly confirmed by archaeozoological finds. Small dogs were mainly kept in the homes of wealthy Greeks and Romans, and their diet did not differ much from that of the members of the household. These animals were lovingly cared for, and from the sources that have survived, including the iconography, it can be concluded that they were primarily treated as companions for women and children. However, in the written records we also find references to small dogs belonging to men, for example Epaminondas[75] or the musician Theodore[76]. Scenes of dogs playing with children were a popular iconographic motif. On the other hand, they are mentioned as female companions by authors of literary texts, for example: Plutarch mentioning a small shaggy dog that accompanied a widow[77].

It is difficult to state with certainty whether the small spitz type dogs depicted in Greek and Roman iconography can be considered a separate, fully developed breed, but they are undoubtedly descended from the spitz. Obviously, these animals had specific individual characteristics that distinguished them from dogs used for other purposes, such as herding or hunting, but it is hard to determine to what extent the morphological characteristics that we can observe thanks to

75 Elian mentioned the Maltese dog greeting Epaminondas on his return to Sparta see Aelian, *Varia historia*, 13.41.

76 Aelian, *Varia historia*, 7.40.

77 Plutarchus, *De tranquillitate animi*, 472c.

iconography were predetermined and hereditary. The iconographic material, although very helpful, is also rather fragmentary and the finds come from different periods and regions of the Mediterranean area, which makes it impossible at this stage to reach a clear conclusion about, among other things, the full heritability of certain traits.

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